

6061-T6

2" X 4.500"

Work Order ID 81945

81945

Page 1

March-21-12 10:15:58 AM

Item ID: D4101-1

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Bracket

Start Date: 21/03/2012 Start Qty: 6.00

6

Cust Item ID:

Required Date: 04/04/2012 Req'd Qty: 6.00

6

Customer:

Reference:

Approvals: Process Plan: MLJDate: 12/03/21 Tooling:

Date:

Run Start *NR1*

QC: _____

Date: _____ SPC (Y/N): _____

Date:

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr

Revision Nbr

D4101

B

100

Cut blanks as per folio

0.00

100

Bandsaw

Memo

0.00

Jeaspa Bandsaw

5.00" LONG

RT 12.03.27

110

0.00

110

HAAS 1

Memo

0.00

HAAS CNC vertical machine #1

Mill as per dwg and Folio FA947

DEBURR

RT 12.03.28

120

QC2- Inspect parts off machine FAI/FAIB

0.00

120

QC

Memo

0.00

Quality Control

RT 12.03.28

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 81945

March-21-12 10:15:58 AM

81945

Page 2

Item ID: D4101-1

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Bracket

Start Date: 21/03/2012 Start Qty: 6.00

6

Cust Item ID:

Required Date: 04/04/2012 Req'd Qty: 6.00

6

Customer:

Reference:

Approvals:

Process Plan: _____

Date: _____

Tooling: _____

Date: _____

Run Start ***NR1***

QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop ***NR2***Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

130

QC8- Inspect parts - second check

0.00

130

QC

Memo

0.00

Quality Control

B-a 12/03/29

6 0

140

Chemical Conversion Coat per QSI005 4.1

0.00

140

HandFinish

Memo

0.00

Hand Finishing

6 BL 12-3-29

150

QC3- Inspect Part Finish

0.00

150

QC

Memo

0.00

Quality Control

6x0 m/p 12/3/29

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NOTE: Date & initial all entries

Work Order ID 81945

81945

Page 3

March-21-12 10:15:58 AM

Item ID: D4101-1 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Bracket
 Start Date: 21/03/2012 Start Qty: 6.00 ***6*** Cust Item ID:
 Required Date: 04/04/2012 Req'd Qty: 6.00 ***6*** Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160	Identify as per dwg & Stock Location: STGA	0.00							
160									
Packaging	Memo	0.00							
Packaging									
170	QC21- Final Inspection - Work Order Release	0.00							
170									
QC	Memo	0.00							
Quality Control									

(62) SP 12-0330

12/3/30
12/2/30

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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NOTE: Date & initial all entries

Picklist Print

March-21-12 10:16:02 AM

Page 1

Work Order ID: 81945

81945

Parent Item: D4101-1

D4101-1

Parent Item Name: Bracket

Start Date: 21/03/2012

Required Date: 04/04/2012

Start Qty: 6.00

Required Qty: 6.00

Comments: IPP REV:A NEW ISSUE 10-07-11 JLM VERIFIED BY:DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M6061T6B2.000X04.50 0		Purchased	No			100	f	11.0000	0.416	2.627368			

M6061T6B2 000X04 500

**

GT 12-03-28

6061T6 Bar 2.00 x 4.500

Location

Loc Qty

Loc Code

MAT008

11

112330

11

x 2.627368

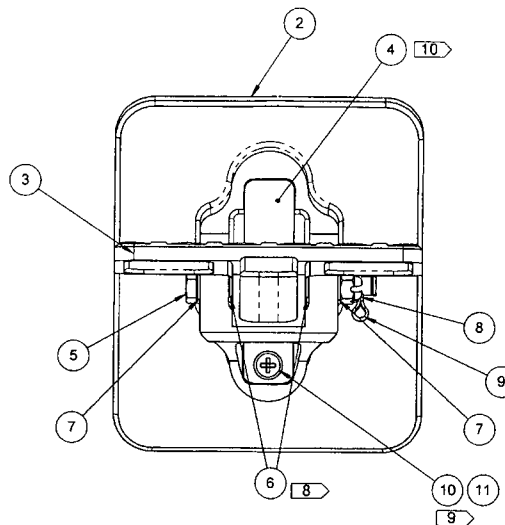
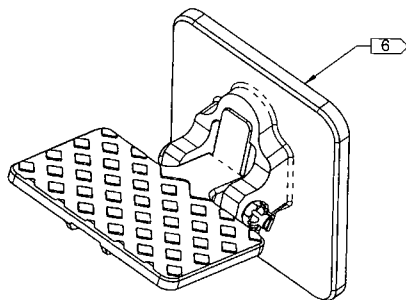
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NOTE: Date & initial all entries



D4101-041 PRE-FLIGHT STEP ASSEMBLY

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: NONE
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D4101-041" USING FINE POINT PERMANENT INK MARKER BACK SURFACE
- 7) WEIGHT: 1.18 lbs
- 8) INSTALL NAS1149D0432J WASHER IN BETWEEN STEP AND BRACKET MATING FACES
- 9) TORQUE AN525832R SCREW TO 15-25 in-lb
- 10) TEXTURED SIDE TO BOTTOM

ITEM	QTY	PART NUMBER	DESCRIPTION
1	X	D4101-041	PRE-FLIGHT STEP ASSEMBLY
2	1	D4101-1	BRACKET
3	1	D4101-3	STEP
4	1	D4101-5	SPRING
5	1	AN4-22	BOLT
6	2	NAS1149D0432J	WASHER
7	2	NAS1149D0463J	WASHER
8	1	AN310-4	NUT
9	1	MS24665-136	COTTER PIN
10	1	AN525-832R6	SCREW
11	1	MS21209C0815	HELICOIL

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 81945 MCO

12/03/21

RELEASED
2010-08-23

B	NAS1149D0432J WAS NAS1149D0416J (ZN D3-1); ADD SCREW AND HELICOIL (ZN D3-1& B1-3); RE-DESIGN D4101-5 (ZN B4-5)	RF	10.08.05
A	NEW ISSUE	RF	10.07.12
REV.	DESCRIPTION	BY	DATE
DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED	RF	DRAWING NO.	REV. B
MFG. APPR.	RF	D4101	SHEET 1 OF 5
APPROVED	RF	TITLE	SCALE
DE APPR.	RF	PRE-FLIGHT STEP ASSEMBLY	NTS
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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

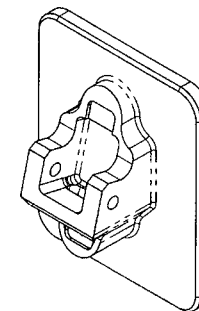
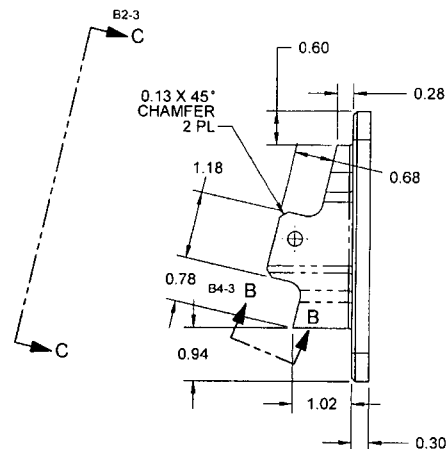
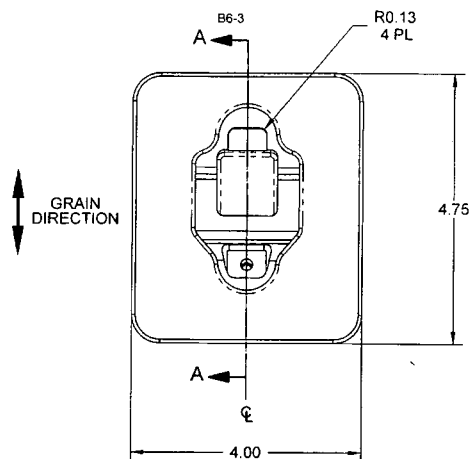
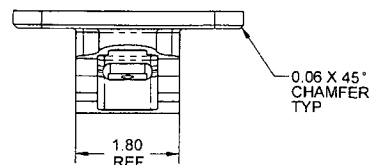
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Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

B1945



D4101-1 BRACKET

RELEASED
2010-08-23

NOTES:

- 1) MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR
PER QQ-A-225/8 OR AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116)
OR QQ-A-200/8 OR AMS-QQ-A-200/8 (OR AMS 4160)
OR ASTM B211 OR ASTM B221
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.85 lbs

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DRAWN	RF		
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. B
MFG. APPR.	<i>[Signature]</i>	D4101	SHEET 2 OF 5
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	PRE-FLIGHT STEP ASSEMBLY	NTS
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W/O:		WORK ORDER CHANGES					
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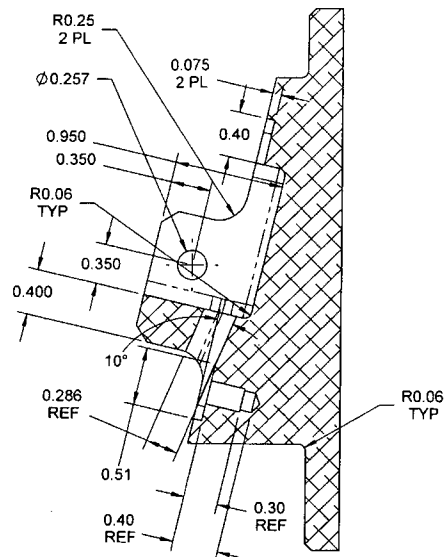
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Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

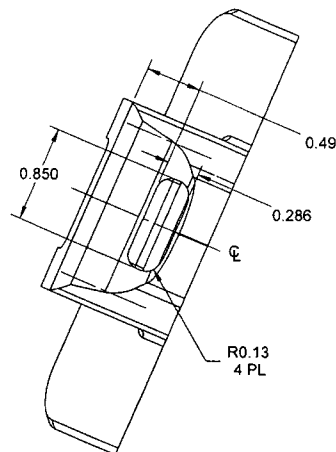
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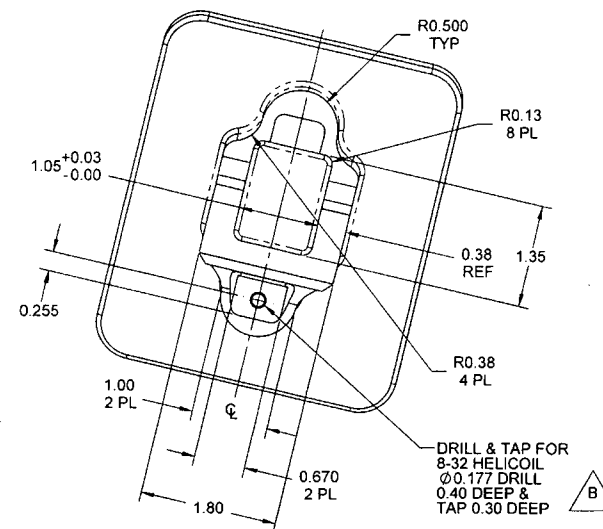
81945



SECTION A-A C7-2
SCALE 2X



VIEW B-B C4-2
SCALE 2X



VIEW C-C D4-2
SCALE X1.5

RELEASED
2010-08-23

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CHECKED	RF	DRAWING NO.	REV. B
MFG. APPR.	RF	D4101	SHEET 3 OF 5
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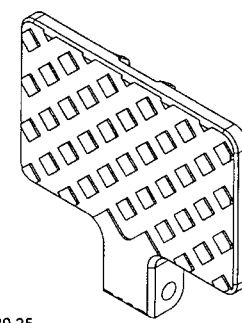
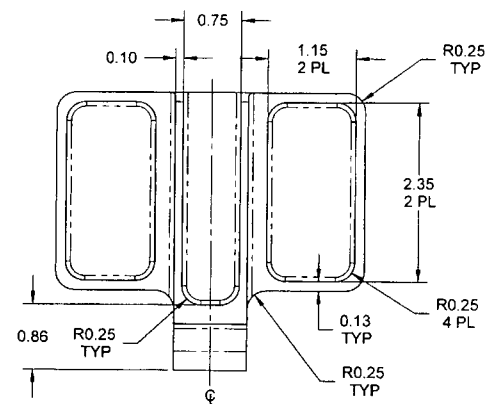
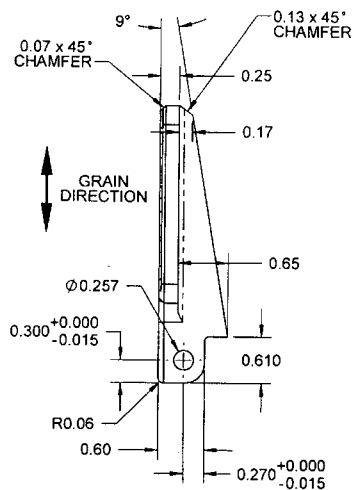
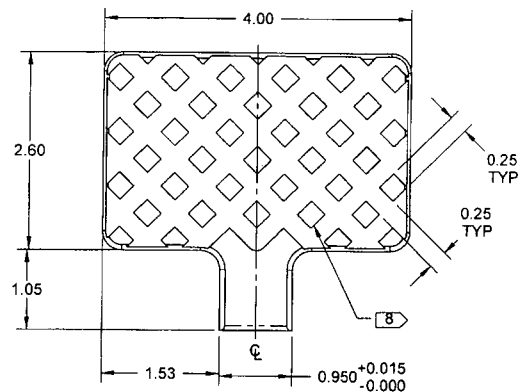
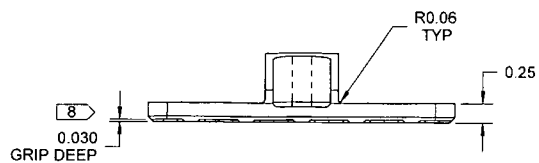
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

21943



D4101-3 STEP

RELEASED
2010-08-23

NOTES:

- 1) MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR
PER QQ-A-225/8 OR AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116)
OR QQ-A-200/8 OR AMS-QQ-A-200/8 (OR AMS 4160)
OR ASTM B211 OR ASTM B221
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 0.27 lbs
- 8) MACHINE 0.25 x 0.25 GRIP 0.030 DEEP AT 45° PATTERN 0.25 APART

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DRAWN	RF		
CHECKED	<i>[Signature]</i>	DRAWING NO. D4101	REV. B
MFG. APPR.	<i>[Signature]</i>	SHEET 4 OF 5	
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	PRE-FLIGHT STEP ASSEMBLY	
DATE	10.08.05	NTS	

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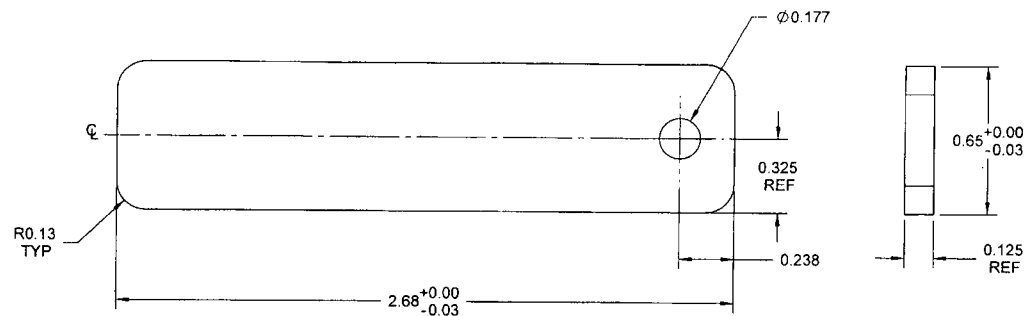
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NOTE: Date & initial all entries

21948



D4101-5 SPRING



RELEASED
2010-08-23

NPD

NOTES:

- 1) MATERIAL: F60029-GY3778 DARK GREY LEXAN SHEET (HEAVY HAIRCELL TEXTURE) 0.125 THICK
REF DART SPEC MLEXS.125-F60029-04
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 0.01 lbs

DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
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CHECKED	RF	DRAWING NO.	REV. B
MFG. APPR.	RF	D4101	SHEET 5 OF 5
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DART AEROSPACE LTD		Work Order:	81945
Description: Bracket		Part Number:	D4101-1
Inspection Dwg: D4101	Rev: B	Page 1 of 2	

FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
0.06 x 45°	+/-0.030 x 0.5°	.078	✓		85-4	vern
1.80	+/-0.030	1.806	✓			
R0.13	+/-0.030	.130	✓			
4.00	+/-0.030	4.001	✓			
4.75	+/-0.030	4.750	✓			
0.13 x 45°	+/-0.030 x 0.5°	.130	✓			
1.18	+/-0.030	1.179	✓			
0.78	+/-0.030	.78	✓			
0.94	+/-0.030	.935	✓			
1.02	+/-0.030	1.015	✓			
0.30	+/-0.030	.299	✓			
0.68	+/-0.030	.677	✓		85-6	depth gauge
0.28	+/-0.030	.282	✓			
0.60	+/-0.030	.600	✓			
0.400	+/-0.010	.395	✓			
10°	+/-0.5°	10°	✓			
0.286	+/-0.010	.279	✓			
0.51	+/-0.030	.51	✓			
0.40	+/-0.030	.42	✓			
R0.06	+/-0.030	.06	✓			
0.40	+/-0.030	.399	✓			
0.075	+/-0.030	.073	✓			
R0.25	+/-0.030	.25	✓			
Ø0.257	+0.006/-0.001	.257	✓			
0.950	+/-0.010	.949	✓			
0.350	+/-0.010	.356	✓			
R0.06	+/-0.030	.06	✓			
0.350	+/-0.010	.349	✓			
0.850	+/-0.010	.848	✓			
R0.13	+/-0.030	.13	✓			
0.49	+/-0.030	.460	✓			
1.05	+0.030/-0.000	1.055	✓			
0.255	+/-0.010	.257	✓			
1.00	+/-0.030	1.000	✓			
0.670	+/-0.010	.668	✓			
R0.38	+/-0.030	.380	✓			
1.35	+/-0.030	1.342	✓			

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